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7			ncluding Author, Title, D			
(8)	Arcamone F., Doxoru	olem: Amicancer	Antibiotics, Academic P	ress, New Fork, 19	701.	
2 <b>A</b>	Hobbie R.K. et al., "T AIP Press, New York,		ieutral membranes," Intei	rmediate Physics fo	or Medicine a	and Biology, 3 <sup>rd</sup> ed.,
File	Jellinek H.H.G., "Asp	ects of Degradatio	on and Stabilization of Po	lymers," <i>Elsevier</i> ,	New York, (	517-657 (1978).
80	Lasic et al., "Medical	Applications of L	iposomes," Elsevier, Nev	v York, pp. 1-24 (1	998).	
8790		um Albumin: Qu	d Degradation of Poly-dl antitative Evaluation of t 24.			
<b>60</b> )	Pitt C.G., "Poly(e-cap	rolactone) and its	copolymers," R. Langer New York, NY, pp. 71-1		s.), Biodegra	bable Polymers as
Color -	Piskins et al., "Novel 7:359-373 (1995).	PDLLA/PEG copo	olymer micelles as drug o	carriers," J. Biomat	erials Scienc	e, Polymer Ed.
50			thylene glycol block cop Biomaterials Science, Po			rethylene glycol on
9 (3)	Szleifer et al., "Curvat	ure Elasticity of P	ure and Mixed Surfactan	t Films," Phys. Re	v. Lett. 60(19	9):1966 (1988).
	T NO				fn	// TE
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s). PTO-1449.doc

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	U.S. PATENT DOCUMENTS					
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	FOREIGN PATENT DOCUMENTS						
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		Country Code <sup>3</sup> Number <sup>4</sup> - Kind Code <sup>5</sup> (if known)			Figures Appear		

		OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS (cont'd.)	
Exr Init s	ı	Include Name of first Author (in CAPITAL LETTERS), title of the article (where appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), volume-issue number(s), page(s), date (in parentheses). If a book, also include publisher and city and/or county where published.	
Egg		Adlakha-Hutcheon G. et al., "Controlled destabilization of a liposomal drug delivery system enhances mitoxantrone antitumor activity," Nature Biotechnology, 17:775-779 (1999).	
2		Ahmed F. et al., "Block Copolymer Assemblies with Cross-Link Stabilization: From Single-Component Monolayers to Bilayer Blends with PEO - PLA," Langmuir, 19:6505-6511(2003).	
3		Allen C. et al., "Polycaprolactone-b-poly(ethylene oxide) copolymer micelles as a delivery vehicle for dihydrotestosterone," Journal of Controlled Release, 63:275-286.	
4		Anderson et al., "Biodegradation and biocompatibility of PLA and PLGA microsphere," Advanced Drug Delivery Reviews, 28:5-24 (1997).	
5		Angelova M.I. et al., "Preparation of giant vesicles by external AC electric fields. Kinetics and applications," Prog. Coll. Polym. Sci., 89:127-131 (1992).	
6	V	Araki H. et al., "Antitumor Effect of Cisplatin Incorporated into Polyactic Acid Microcapsules," Artificial Organs, 23(2):161-168 (1999).	
Z	7	Arcamone F., Doxorubicin: Anticancer Antibiotics, Academic Press, New York, 1981.	
8		Avgoustakis et al., "PLGA-mPEG nanoparticles of cisplatin: in vitro nanoparticle degradation, in vitro drug release and in vivo drug residence in blood properties," J. of Controlled Release, 79:123-135 (2002).	
9		Bates F. et al., "Polymer-Polymer Phase Behavior," Science, 251:898-905 (1991).	
10		Bates F. et al., "Block Copolymers - Designer Soft Materials," Physics Today, 32-38 (1999).	
		Belbella A. et al., "In vitro degradation of nanospheres from poly(D,L-lactides) of different molecular weights and polydispersities," International Journal of Pharmaceutics, 129:95-102 (1996).	

Bilayers, in Handbook of Biological Physics, Vol. 1, chapter 7, Elsevier Science, Amsterdam, 1995.	10		
Chemistry, 104:361-379 (2003).  Bermudez H. et al., "Molecular Weight Dependence of Polymersome Membrane Structure, Elasticity, and Stability," Macromolecules, 35:8203-8208 (2002).  Boomer J. et al., "Acid -Triggered Release from Sterically Stabilized Fusogenic Liposomes via a Hydrolytic DePEOylation Strategy," Langmuir, 19:6408-6415 (2003).  Borner J. et al., "Synthesis of acid-labile diplasmenyl lipids for drug and gene delivery applications," Chemistry and Physics of Lipids, 99:145-153 (1999).  Thurner A. et al., "Plat and Osmotic Pressure Inside Biodegradable Microspheres During Erosion," Pharmaceutical Research, 16(6):847-853 (1999).  Brunner A. et al., "Diffusion of Dextran in Aqueous (Hydroxypropyl) cellulose," Macromolecules, 27:1187-1194 (1994).  Bu Z. et al., "Diffusion of Dextran in Aqueous (Hydroxypropyl) cellulose," Macromolecules, 27:1187-1194 (1994).  Cevic & Lasic, "Material Transport Across Permeability Barriers by Means of Lipid Vesicles," in Handbook of Biological Physics, chaps. 9-10 (1995).  Chaieb S. et al., "Spontaneous curvature-induced," Physical Review E., 58(6):7733-7737 (1998).  Chaieb S. et al., "Spontaneous curvature-induced," Physical Review E., 58(6):7733-7737 (1998).  Chaieb S. et al., "Spontaneous curvature-induced," Physical Review E., 58(6):7733-7737 (1998).  Chaieb S. et al., "Form supramolecular polymersome to stimuli-responsive nano-capsules based on poly (diene-b-peptide) diblock copolymer," The European Physical Journal E., 10:25-35 (2003).  Cornelissen J. et al., "Helical superstructures from charged poly (styrene)-poly (isocyanodipeptide) block cipolymers," Science, 280:1427 (1998).  Dalhaimer P. et al., "Synthetic cell elements from block copolymers-hydrodynamic aspects," C.R. Physique, 4:251-258 (2003).  Davidsen et al., "Secreted phospholipase A <sub>1</sub> as a new enzymatic trigger mechanism for localized liposomal drug release and absorption in diseased tissue," Biochim. Biophys. Acta 1609:95-101 (2003).  Douling H. J. et al., "The Curvature Elasticity of Fluid Membranes:	390	Ben-Shaul A., Molecular Theory of Chain Packing, Elasticity and Lipid-Protein Interaction in Lipid  Bilayers, in Handbook of Biological Physics, Vol. 1, chapter 7, Elsevier Science, Amsterdam, 1995.	
Stability," Macromolecules, 35:8203-8208 (2002).  15 Boomer J. A. et al., "Acid.—Triggered Release from Sterically Stabilized Fusogenic Liposomes via a Hydrolytic DePEGylation Strategy," Langmuir, 19:6408-6415 (2003).  16 Boomer J. et al., "Synthesis of acid-labile diplasmenyl lipids for drug and gene delivery applications," Chemistry and Physics of Lipids, 99:145-153 (1999).  17 Brunner A. et al., "PH and Osmotic Pressure Inside Biodegradable Microspheres During Erosion," Pharmaceutical Research, 16(6):847-853 (1999).  18 Bu Z. et al., "Diffusion of Dextran in Aqueous (Hydroxypropyl) cellulose," Macromolecules, 27:1187-1194 (1994).  19 Cevic & Lasic, "Material Transport Across Permeability Barriers by Means of Lipid Vesicles," in Handbook of Biological Physics, chaps. 9-10 (1995).  20 Chaids J. et al., "Spontaneous curvature-induced," Physical Review E., 58(6):7733-7737 (1998).  21 Chaids J. et al. "Biodegradable poly(e-caprolactone) nanoparticles for tumor-targeted delivery of tamoxifen," International Journal of Pharmaceutics, 249:127-138 (2002).  22 Cheios F. et al., "From supramolecular polymersome to stimuli-responsive nano-capsules based on poly (diene-b-peptide) diblock copolymer," The European Physical Journal E, 10:25-35 (2003).  23 Cornelissen J. et al., "Helical suprestructures from charged poly (styrene)-poly (isocyanodipeptide) block cipolymers, "Science, 280:1427 (1998).  24 Dalhatimer P. et al., "Synthetic cell elements from block copolymers-hydrodynamic aspects," C.R. Physique, 4:251-258 (2003).  25 Davidsen et al., "Secreted phospholipase A2 as a new enzymatic trigger mechanism for localized liposomal drug release and absorption in diseased tissue," Biochim. Biophys. Acta 1609-95-101 (2003).  26 Deuting H. J. et al., "The Curvature Elasticity of Fluid Membranes: A Catalogue Of Vesicle Shapes," Le Journal De Physique, 37:1335-1345 (1976).  27 Dimova R. et al., "Hyperviscous diblock copolymer vesicles," The European Physical Journal E., 7:241-250 (2002).  28 Discher B. et al., "Cross-linked Poly	13		
Hydrolytic DePEGylation Strategy," Langmuir, 19:6408-6415 (2003).  Boomer J. et al., "Synthesis of acid-labite diplasmenyl lipids for drug and gene delivery applications," Chemistry and Physics of Lipids, 99:145-153 (1999).  Brunner A. et al., "PH and Osmotic Pressure Inside Biodegradable Microspheres During Erosion," Pharmaceutical Research, 16(6):847-853 (1999).  Brunner A. et al., "Diffusion of Dextran in Aqueous (Hydroxypropyl) cellulose," Macromolecules, 27:1187-1194 (1994).  Cevic & Lasic, "Material Transport Across Permeability Barriers by Means of Lipid Vesicles," in Handbook of Biological Physics, chaps. 9-10 (1995).  Chaieb S. et al., "Spontaneous curvature-induced," Physical Review E., 58(6):7733-7737 (1998).  Chaieb S. et al., "Floodegradable poly(ce-garolactone) nanoparticles for rumor-targeted delivery of tamoxilen," International Journal of Pharmaceutics, 249:127-138 (2002).  Chécot F. et al., "From supramolecular polymersome to stimuli-responsive nano-capsules based on poly (diene-b-peptide) diblock copolymers." The European Physical Journal E. J. 125-235 (2003).  Cornelissen J. et al., "Helical superstructures from charged poly (styrene)-poly (isocyanodipeptide) block cipolymers," Science, 280:1427 (1998).  Daldmirer P. et al., "Synthetic cell elements from block copolymers-hydrodynamic aspects," C.R. Physique, 4:251-258 (2003).  Davidsen et al., "Secreted phospholipase A2 as a new enzymatic trigger mechanism for localized liposomal drug release and absorption in diseased tissue," Biochim. Biophys. Acta 1609:95-101 (2003).  Deuling H. J. et al., "The Curvature Elasticity of Fluid Membranes: A Catalogue Of Vesicle Shapes," Le Journal De Physique, 3:71335-1345 (1976).  Dimova R. et al, "Hyperviscous diblock copolymer vesicles," The European Physical Journal E., 7:241-250 (2002).  Dimova R. et al., "Polymersomes: Tough Vesicles Made from Diblock Copolymer," Science, 284(5417):1143-1146 (1999).  Discher D. E. et al., "Polymersomes: Tough Vesicles Made from Diblock Copolymer," Science, 284(5417):114	14		
Chemistry and Physics of Lipids, 99:145-153 (1999).  Brunner A. et al., "pH and Osmotic Pressure Inside Biodegradable Microspheres During Erosion," Pharmaceutical Research, 16(6):847-853 (1999).  Brunner A. et al., "Diffusion of Dextran in Aqueous (Hydroxypropyl) cellulose," Macromolecules, 27:1187-1194 (1994).  Cevic & Lasic, "Material Transport Across Permeability Barriers by Means of Lipid Vesicles," in Handbook of Biological Physics, chaps. 9-10 (1995).  Cevic & Lasic, "Material Transport Across Permeability Barriers by Means of Lipid Vesicles," in Handbook of Biological Physics, chaps. 9-10 (1995).  Chaieb S. et al., "Spontaneous curvature-induced," Physical Review E., 58(6):7733-7737 (1998).  Chaieb S. et al., "Biodegradable poly(e-caprolactone) nanoparticles for tumor-targeted delivery of tamoxifen," International Journal of Pharmaceutics, 249:127-138 (2002).  Chaieb S. et al., "Thorm supramolecular polymersome to stimuli-responsive nano-capsules based on poly (diene-b-peptide) diblock copolymer," The European Physical Journal E, 10:25-35 (2003).  Cornelissen J. et al., "Helical superstructures from charged poly (styrene)-poly (isocyanodipeptide) block cipolymers," Science, 280:1427 (1998).  Dalhaimer P. et al., "Synthetic cell elements from block copolymers-hydrodynamic aspects," C.R. Physique, 4:251-258 (2003).  Davidsen et al., "Secreted phospholipase A2 as a new enzymatic trigger mechanism for localized liposomal drug release and absorption in diseased tissue," Biochim Biophys. Acta 1609-95-101 (2003).  Davidsen et al., "The Curvature Elasticity of Fluid Membranes: A Catalogue Of Vesicle Shapes," Le Journal De Physique, 37:1335-1345 (1976).  Dimova R. et al., "Hyperviscous diblock copolymer vesicles," The European Physical Journal E., 7:241-250 (2002).  Dimova R. et al., "Polymersomes: Tough Vesicles Made from Diblock Copolymer," Science, 284(5417):1143-1146 (1999).  Discher B. et al., "Polymersomes: Tough Vesicles Made from Diblock Copolymer," Science, 284(5417):143-1146 (1999).  Discher D. E. et al	15	Boomer J.A. et al., "Acid -Triggered Release from Sterically Stabilized Fusogenic Liposomes via a Hydrolytic DePEGylation Strategy," Langmuir, 19:6408-6415 (2003).	
Pharmaceutical Research, 16(6):847-853 (1999).    Pharmaceutical Research, 16(6):847-853 (1999).    Bu Z. et al., "Diffusion of Dextran in Aqueous (Hydroxypropyl) cellulose," Macromolecules, 27:1187-1194 (1994).    Cevic & Lasic, "Material Transport Across Permeability Barriers by Means of Lipid Vesicles," in Handbook of Biological Physics, chaps. 9-10 (1995).    Chaieb S. et al., "Spontaneous curvature-induced," Physical Review E., 58(6):7733-7737 (1998).    Chaieb S. et al., "Spontaneous curvature-induced," Physical Review E., 58(6):7733-7737 (1998).    Chaieb S. et al., "Biodegradable poly(e-caprolactone) nanoparticles for tumor-targeted delivery of tamoxifen," International Journal of Pharmaceutics, 249:127-138 (2002).    Checot F. et al., "From supramolecular polymersome to stimuli-responsive nano-capsules based on poly (diene-b-peptide) diblock copolymer," The European Physical Journal E, 10:25-35 (2003).    Cornelissen J. et al., "Helical superstructures from charged poly (styrene)-poly (isocyanodipeptide) block cipolymers," Science, 280:1427 (1998).    Dalhaimer P. et al., "Sputhetic cell elements from block copolymers-hydrodynamic aspects," C.R. Physique, 4:251-258 (2003).    Davidsen et al., "Secreted phospholipase A2 as a new enzymatic trigger mechanism for localized liposomal drug release and absorption in diseased tissue," Biochim. Biophys. Acta 1609:95-101 (2003).    Deuling H. J. et al., "The Curvature Elasticity of Fluid Membranes: A Catalogue Of Vesicle Shapes," Le Journal De Physique, 37:1335-1345 (1976).    Dimova R. et al., "Hyperviscous diblock copolymer vesicles," The European Physical Journal E., 7:241-250 (2002).    Dimg J. et al., "Water-Soluble Hollow Nanospheres as Potential Drug Carriers," J. Phys. Chem B., 102:6107-6113 (1998).    Discher B. et al., "Polymersomes: Tough Vesicles Made from Diblock Copolymer," Science, 284(5417):1143-1146 (1999).    Discher D. E. et al., "Polymer Vesicles: Review," Science, 297(5583):967 (2002).    Discher D. E. et al., "Polymer Vesicles: Review," Sci	16		
1194 (1994).  12	17		
Handbook of Biological Physics, chaps. 9-10 (1995).  Chaieb S. et al., "Spontaneous curvature-induced," Physical Review E., 58(6):7733-7737 (1998).  Chawla J. et al, "Biodegradable poly(e-caprolactone) nanoparticles for tumor-targeted delivery of tamoxifen," International Journal of Pharmaceutics, 249:127-138 (2002).  Chécot F. et al., "From supramolecular polymersome to stimuli-responsive nano-capsules based on poly (diene-b-peptide) diblock copolymer," The European Physical Journal E, 10:25-35 (2003).  Cornelissen J. et al., "Helical superstructures from charged poly (styrene)-poly (isocyanodipeptide) block cipolymers," Science, 280:1427 (1998).  Dalhaimer P. et al., "Synthetic cell elements from block copolymers-hydrodynamic aspects," C.R. Physique, 4:251-258 (2003).  Dalhaimer P. et al., "Synthetic cell elements from block copolymers-hydrodynamic aspects," C.R. Physique, 4:251-258 (2003).  Dalhaimer P. et al., "Secreted phospholipase A <sub>2</sub> as a new enzymatic trigger mechanism for localized liposomal drug release and absorption in diseased tissue," Biochim. Biophys. Acta 1609:95-101 (2003).  Deuling H. J. et al., "The Curvature Elasticity of Fluid Membranes: A Catalogue Of Vesicle Shapes," Le Journal De Physique, 37:1335-1345 (1976).  Dimova R. et al., "Hyperviscous diblock copolymer vesicles," The European Physical Journal E., 7:241-250 (2002).  Discher B. et al., "Water-Soluble Hollow Nanospheres as Potential Drug Carriers," J. Phys. Chem B., 102:6107-6113 (1998).  Discher B. et al., "Floymersomes: Tough Vesicles Made from Diblock Copolymer," Science, 284(5417):1143-1146 (1999).  Discher D. E. et al., "Polymersomes: Tough Vesicles Made from Diblock Copolymer," Science, 284(5417):1143-1146 (1999).  Discher D. E. et al., "Mapping vesicles shapes into the phase diagram: A comparison of experiment and theory," Physical Review E., 55(4):4458-4474 (1997).  Discher D. E. et al., "Polymerices of Surfactant Bilayer Membranes: Thermal Transitions, Elasticity, Rigidity, Cohesion, and Colloidal Interactions," J. Physic	18		
Chawla J. et al., "Biodegradable poly(e-caprolactone) nanoparticles for tumor-targeted delivery of tamoxifen," International Journal of Pharmaceutics, 249:127-138 (2002).	19		
Chawla J. et al., "Biodegradable poly(e-caprolactone) nanoparticles for tumor-targeted delivery of tamoxifen," International Journal of Pharmaceutics, 249:127-138 (2002).	20	Chaieb S. et al., "Spontaneous curvature-induced," Physical Review E., 58(6):7733-7737 (1998).	
(diene-b-peptide) diblock copolymer," The European Physical Journal E, 10:25-35 (2003).  Cornelissen J. et al., "Helical superstructures from charged poly (styrene)-poly (isocyanodipeptide) block cipolymers," Science, 280:1427 (1998).  Dalhaimer P. et al., "Synthetic cell elements from block copolymers-hydrodynamic aspects," C.R. Physique, 4:251-258 (2003).  Dalhaimer P. et al., "Secreted phospholipase A2 as a new enzymatic trigger mechanism for localized liposomal drug release and absorption in diseased tissue," Biochim. Biophys. Acta 1609:95-101 (2003).  Deuling H. J. et al., "The Curvature Elasticity of Fluid Membranes: A Catalogue Of Vesicle Shapes," Le Journal De Physique, 37:1335-1345 (1976).  Dimova R. et al., "Hyperviscous diblock copolymer vesicles," The European Physical Journal E., 7:241-250 (2002).  Ding J. et al., "Water-Soluble Hollow Nanospheres as Potential Drug Carriers," J. Phys. Chem B., 102:6107-6113 (1998).  Discher B. et al., "Cross-linked Polymersome Membranes: Vesicles with Broadly Adjustable Properties," J. Phys. Chem. B, 106:2848-2854.  Discher B. et al., "Polymersomes: Tough Vesicles Made from Diblock Copolymer," Science, 284(5417):1143-1146 (1999).  Discher D. E. et al., "Polymer Vesicles: Review," Science, 297(5583):967 (2002).  Discher D. E. et al., "Molecular Maps of Red Cell Deformation: Hidden Elasticity and in Situ Connectivity," Science, 266(5187):1032-1035 (1994).  Discher D. E. et al., "Molecular Maps of Red Cell Deformation: Hidden Elasticity and in Situ Connectivity," Science, 266(5187):1032-1035 (1994).  Dibereiner H.G. et al., "Mapper Vesicles shapes into the phase diagram: A comparison of experiment and theory," Physical Review E., 55(4):4458-4474 (1997).  Evans E. et al., "Entropy-Driven Tension and Bending Elasticity in condensed-Fluid Membranes," Phys. Rev. Lett., 64(17):2094-2097 (1990).  Evans E. et al., "Polymerized surfactant vesicles: novel membrane mimetic systems," Science, 223:888 (1984).  Fendler J. H., "Polymerized surfactant vesicles: novel membrane mimeti	21	Chawla J. et al, "Biodegradable poly(\varepsilon-caprolactone) nanoparticles for tumor-targeted delivery of tamoxifen," International Journal of Pharmaceutics, 249:127-138 (2002).	
cipolymers," Science, 280:1427 (1998).  Dalhaimer P. et al., "Synthetic cell elements from block copolymers-hydrodynamic aspects," C.R. Physique, 4:251-258 (2003).  Davidsen et al., "Secreted phospholipase A2 as a new enzymatic trigger mechanism for localized liposomal drug release and absorption in diseased tissue," Biochim. Biophys. Acta 1609:95-101 (2003).  Deuling H. J. et al., "The Curvature Elasticity of Fluid Membranes: A Catalogue Of Vesicle Shapes," Le Journal De Physique, 37:1335-1345 (1976).  Dimova R. et al., "Hyperviscous diblock copolymer vesicles," The European Physical Journal E., 7:241-250 (2002).  Ding J. et al., "Water-Soluble Hollow Nanospheres as Potential Drug Carriers," J. Phys. Chem B., 102:6107-6113 (1998).  Discher B. et al., "Cross-linked Polymersome Membranes: Vesicles with Broadly Adjustable Properties," J. Phys. Chem. B, 106:2848-2854.  Discher B. et al., "Polymersomes: Tough Vesicles Made from Diblock Copolymer," Science, 284(5417):1143-1146 (1999).  Discher D. E. et al., "Polymer Vesicles: Review," Science, 297(5583):967 (2002).  Discher D. E. et al., "Molecular Maps of Red Cell Deformation: Hidden Elasticity and in Situ Connectivity," Science, 266(5187):1032-1035 (1994).  Döbereiner H.G. et al., "Mapping vesicle shapes into the phase diagram: A comparison of experiment and theory," Physical Review E., 55(4):4458-4474 (1997).  Evans E. et al., "Entropy-Driven Tension and Bending Elasticity in condensed-Fluid Membranes," Phys. Rev. Lett., 64(17):2094-2097 (1990).  Evans E. et al., "Physical Properties of Surfactant Bilayer Membranes: Thermal Transitions, Elasticity, Rigidity, Cohesion, and Colloidal Interactions," J. Physical Chemistry, 91:4219-4228 (1987).  Fendler J. H., "Polymerized surfactant vesicles: novel membrane mimetic systems," Science, 223:888 (1984).  Gerasimov O. V. et al., "Acid-catalyzed plasmenylcholine hydrolysis and its effect on bilayer permeability:	22	(diene-b-peptide) diblock copolymer," The European Physical Journal E, 10:25-35 (2003).	
<ul> <li>Physique, 4:251-258 (2003).</li> <li>Davidsen et al., "Secreted phospholipase A2 as a new enzymatic trigger mechanism for localized liposomal drug release and absorption in diseased tissue," Biochim. Biophys. Acta 1609:95-101 (2003).</li> <li>Deuling H. J. et al., "The Curvature Elasticity of Fluid Membranes: A Catalogue Of Vesicle Shapes," Le Journal De Physique, 37:1335-1345 (1976).</li> <li>Dimova R. et al., "Hyperviscous diblock copolymer vesicles," The European Physical Journal E., 7:241-250 (2002).</li> <li>Ding J. et al., "Water-Soluble Hollow Nanospheres as Potential Drug Carriers," J. Phys. Chem B., 102:6107-6113 (1998).</li> <li>Discher B. et al., "Cross-linked Polymersome Membranes: Vesicles with Broadly Adjustable Properties," J. Phys. Chem. B, 106:2848-2854.</li> <li>Discher B. et al., "Polymersomes: Tough Vesicles Made from Diblock Copolymer," Science, 284(5417):1143-1146 (1999).</li> <li>Discher D. E. et al., "Polymer Vesicles: Review," Science, 297(5583):967 (2002).</li> <li>Discher D. E. et al., "Molecular Maps of Red Cell Deformation: Hidden Elasticity and in Situ Connectivity," Science, 266(5187):1032-1035 (1994).</li> <li>Döbereiner H.G. et al., "Mapping vesicle shapes into the phase diagram: A comparison of experiment and theory," Physical Review E., 55(4):4458-4474 (1997).</li> <li>Evans E. et al., "Entropy-Driven Tension and Bending Elasticity in condensed-Fluid Membranes," Phys. Rev. Lett., 64(17):2094-2097 (1990).</li> <li>Evans E. et al., "Physical Properties of Surfactant Bilayer Membranes: Thermal Transitions, Elasticity, Rigidity, Cohesion, and Colloidal Interactions," J. Physical Chemistry, 91:4219-4228 (1987).</li> <li>Fendler J. H., "Polymerized surfactant vesicles: novel membrane mimetic systems," Science, 223:888 (1984).</li> <li>Fendler J. H., "Polymerized surfactant vesicles: novel membrane mimetic systems," Science, 223:888 (1984).</li> <li>Gerasimov O. V. et al., "Acid-catalyzed plasmenylcholine hydrolysis and its effect on bilayer permeability:</li> </ul>	23	cipolymers." Science, 280:1427 (1998).	
drug release and absorption in diseased tissue," Biochim. Biophys. Acta 1609:95-101 (2003).  Deuling H. J. et al., "The Curvature Elasticity of Fluid Membranes: A Catalogue Of Vesicle Shapes," Le Journal De Physique, 37:1335-1345 (1976).  Dimova R. et al., "Hyperviscous diblock copolymer vesicles," The European Physical Journal E., 7:241-250 (2002).  Ding J. et al., "Water-Soluble Hollow Nanospheres as Potential Drug Carriers," J. Phys. Chem B., 102:6107-6113 (1998).  Discher B. et al., "Cross-linked Polymersome Membranes: Vesicles with Broadly Adjustable Properties," J. Phys. Chem. B, 106:2848-2854.  Discher B. et al., "Polymersomes: Tough Vesicles Made from Diblock Copolymer," Science, 284(5417):1143-1146 (1999).  Discher D. E. et al., "Polymer Vesicles: Review," Science, 297(5583):967 (2002).  Discher D. E. et al., "Molecular Maps of Red Cell Deformation: Hidden Elasticity and in Situ Connectivity," Science, 266(5187):1032-1035 (1994).  Döbereiner H.G. et al., "Mapping vesicle shapes into the phase diagram: A comparison of experiment and theory," Physical Review E., 55(4):4458-4474 (1997).  Evans E. et al., "Entropy-Driven Tension and Bending Elasticity in condensed-Fluid Membranes," Phys. Rev. Lett., 64(17):2094-2097 (1990).  Evans E. et al., "Physical Properties of Surfactant Bilayer Membranes: Thermal Transitions, Elasticity, Rigidity, Cohesion, and Colloidal Interactions," J. Physical Chemistry, 91:4219-4228 (1987).  Fendler J. H., "Polymerized surfactant vesicles: novel membrane mimetic systems," Science, 223:888 (1984).  Gerasimov O. V. et al, "Acid-catalyzed plasmenylcholine hydrolysis and its effect on bilayer permeability:	24	Physique, 4:251-258 (2003).	
Journal De Physique, 37:1335-1345 (1976).  Dimova R. et al, "Hyperviscous diblock copolymer vesicles," The European Physical Journal E., 7:241-250 (2002).  Ding J. et al., "Water-Soluble Hollow Nanospheres as Potential Drug Carriers," J. Phys. Chem B., 102:6107-6113 (1998).  Discher B. et al., "Cross-linked Polymersome Membranes: Vesicles with Broadly Adjustable Properties," J. Phys. Chem. B, 106:2848-2854.  Discher B. et al., "Polymersomes: Tough Vesicles Made from Diblock Copolymer," Science, 284(5417):1143-1146 (1999).  Discher D. E. et al., "Polymer Vesicles: Review," Science, 297(5583):967 (2002).  Discher D. E. et al., "Molecular Maps of Red Cell Deformation: Hidden Elasticity and in Situ Connectivity," Science, 266(5187):1032-1035 (1994).  Döbereiner H.G. et al., "Mapping vesicle shapes into the phase diagram: A comparison of experiment and theory," Physical Review E., 55(4):4458-4474 (1997).  Evans E. et al., "Entropy-Driven Tension and Bending Elasticity in condensed-Fluid Membranes," Phys. Rev. Lett., 64(17):2094-2097 (1990).  Evans E. et al., "Physical Properties of Surfactant Bilayer Membranes: Thermal Transitions, Elasticity, Rigidity, Cohesion, and Colloidal Interactions," J. Physical Chemistry, 91:4219-4228 (1987).  Fendler J. H., "Polymerized surfactant vesicles: novel membrane mimetic systems," Science, 223:888 (1984).  Gerasimov O. V. et al, "Acid-catalyzed plasmenylcholine hydrolysis and its effect on bilayer permeability:	25	drug release and absorption in diseased tissue," Biochim. Biophys. Acta 1609:95-101 (2003).	
250 (2002).  28 Ding J. et al., "Water-Soluble Hollow Nanospheres as Potential Drug Carriers," J. Phys. Chem B., 102:6107-6113 (1998).  29 Discher B. et al., "Cross-linked Polymersome Membranes: Vesicles with Broadly Adjustable Properties," J. Phys. Chem. B, 106:2848-2854.  30 Discher B. et al., "Polymersomes: Tough Vesicles Made from Diblock Copolymer," Science, 284(5417):1143-1146 (1999).  31 Discher D. E. et al., "Polymer Vesicles: Review," Science, 297(5583):967 (2002).  32 Discher D. E. et al., "Molecular Maps of Red Cell Deformation: Hidden Elasticity and in Situ Connectivity," Science, 266(5187):1032-1035 (1994).  33 Döbereiner H. G. et al., "Mapping vesicle shapes into the phase diagram: A comparison of experiment and theory," Physical Review E., 55(4):4458-4474 (1997).  34 Evans E. et al., "Entropy-Driven Tension and Bending Elasticity in condensed-Fluid Membranes," Phys. Rev. Lett 64(17):2094-2097 (1990).  35 Evans E. et al., "Physical Properties of Surfactant Bilayer Membranes: Thermal Transitions, Elasticity, Rigidity, Cohesion, and Colloidal Interactions," J. Physical Chemistry, 91:4219-4228 (1987).  36 Fendler J. H., "Polymerized surfactant vesicles: novel membrane mimetic systems," Science, 223:888 (1984).  36 Gerasimov O. V. et al, "Acid-catalyzed plasmenylcholine hydrolysis and its effect on bilayer permeability:	26	Journal De Physique, 37:1335-1345 (1976).	
102:6107-6113 (1998).  29    Discher B. et al., "Cross-linked Polymersome Membranes: Vesicles with Broadly Adjustable Properties,"  J. Phys. Chem. B, 106:2848-2854.  30    Discher B. et al., "Polymersomes: Tough Vesicles Made from Diblock Copolymer," Science,  284(5417):1143-1146 (1999).  31    Discher D. E. et al., "Polymer Vesicles: Review," Science, 297(5583):967 (2002).  32    Discher D. E. et al., "Molecular Maps of Red Cell Deformation: Hidden Elasticity and in Situ  Connectivity," Science, 266(5187):1032-1035 (1994).  33    Döbereiner H.G. et al., "Mapping vesicle shapes into the phase diagram: A comparison of experiment and theory," Physical Review E., 55(4):4458-4474 (1997).  34    Evans E. et al., "Entropy-Driven Tension and Bending Elasticity in condensed-Fluid Membranes," Phys. Rev. Lett., 64(17):2094-2097 (1990).  35    Evans E. et al., "Physical Properties of Surfactant Bilayer Membranes: Thermal Transitions, Elasticity, Rigidity, Cohesion, and Colloidal Interactions," J. Physical Chemistry, 91:4219-4228 (1987).  36    Fendler J. H., "Polymerized surfactant vesicles: novel membrane mimetic systems," Science, 223:888 (1984).  37    Gerasimov O. V. et al., "Acid-catalyzed plasmenylcholine hydrolysis and its effect on bilayer permeability:	27	250 (2002).	
J. Phys. Chem. B, 106:2848-2854.  Discher B. et al., "Polymersomes: Tough Vesicles Made from Diblock Copolymer," Science, 284(5417):1143-1146 (1999).  Discher D. E. et al., "Polymer Vesicles: Review," Science, 297(5583):967 (2002).  Discher D. E. et al., "Molecular Maps of Red Cell Deformation: Hidden Elasticity and in Situ Connectivity," Science, 266(5187):1032-1035 (1994).  Döbereiner H.G. et al., "Mapping vesicle shapes into the phase diagram: A comparison of experiment and theory," Physical Review E., 55(4):4458-4474 (1997).  Evans E. et al., "Entropy-Driven Tension and Bending Elasticity in condensed-Fluid Membranes," Phys. Rev. Lett., 64(17):2094-2097 (1990).  Evans E. et al., "Physical Properties of Surfactant Bilayer Membranes: Thermal Transitions, Elasticity, Rigidity, Cohesion, and Colloidal Interactions," J. Physical Chemistry, 91:4219-4228 (1987).  Fendler J. H., "Polymerized surfactant vesicles: novel membrane mimetic systems," Science, 223:888 (1984).  Gerasimov O.V. et al, "Acid-catalyzed plasmenylcholine hydrolysis and its effect on bilayer permeability:		102:6107-6113 (1998).	
284(5417):1143-1146 (1999).  31    Discher D. E. et al., "Polymer Vesicles: Review," Science, 297(5583):967 (2002).  32    Discher D. E. et al., "Molecular Maps of Red Cell Deformation: Hidden Elasticity and in Situ Connectivity," Science, 266(5187):1032-1035 (1994).  33    Döbereiner H.G. et al., "Mapping vesicle shapes into the phase diagram: A comparison of experiment and theory," Physical Review E., 55(4):4458-4474 (1997).  34    Evans E. et al., "Entropy-Driven Tension and Bending Elasticity in condensed-Fluid Membranes," Phys. Rev. Lett., 64(17):2094-2097 (1990).  35    Evans E. et al., "Physical Properties of Surfactant Bilayer Membranes: Thermal Transitions, Elasticity, Rigidity, Cohesion, and Colloidal Interactions," J. Physical Chemistry, 91:4219-4228 (1987).  36    Fendler J. H., "Polymerized surfactant vesicles: novel membrane mimetic systems," Science, 223:888 (1984).  37    Gerasimov O. V. et al, "Acid-catalyzed plasmenylcholine hydrolysis and its effect on bilayer permeability:		J. Phys. Chem. B, 106:2848-2854.	
Discher D. E. et al., "Molecular Maps of Red Cell Deformation: Hidden Elasticity and in Situ Connectivity," Science, 266(5187):1032-1035 (1994).  Döbereiner H.G. et al., "Mapping vesicle shapes into the phase diagram: A comparison of experiment and theory," Physical Review E., 55(4):4458-4474 (1997).  Evans E. et al., "Entropy-Driven Tension and Bending Elasticity in condensed-Fluid Membranes," Phys. Rev. Lett., 64(17):2094-2097 (1990).  Evans E. et al., "Physical Properties of Surfactant Bilayer Membranes: Thermal Transitions, Elasticity, Rigidity, Cohesion, and Colloidal Interactions," J. Physical Chemistry, 91:4219-4228 (1987).  Fendler J. H., "Polymerized surfactant vesicles: novel membrane mimetic systems," Science, 223:888 (1984).  Gerasimov O. V. et al, "Acid-catalyzed plasmenylcholine hydrolysis and its effect on bilayer permeability:		284(5417):1143-1146 (1999).	
Connectivity," Science, 266(5187):1032-1035 (1994).  Döbereiner H.G. et al., "Mapping vesicle shapes into the phase diagram: A comparison of experiment and theory," Physical Review E., 55(4):4458-4474 (1997).  Evans E. et al., "Entropy-Driven Tension and Bending Elasticity in condensed-Fluid Membranes," Phys. Rev. Lett., 64(17):2094-2097 (1990).  Evans E. et al., "Physical Properties of Surfactant Bilayer Membranes: Thermal Transitions, Elasticity, Rigidity, Cohesion, and Colloidal Interactions," J. Physical Chemistry, 91:4219-4228 (1987).  Fendler J. H., "Polymerized surfactant vesicles: novel membrane mimetic systems," Science, 223:888 (1984).  Gerasimov O. V. et al, "Acid-catalyzed plasmenylcholine hydrolysis and its effect on bilayer permeability:		Discher D. E. et al., "Polymer Vesicles: Review," Science, 297(5583):967 (2002).	<del> </del>
theory," Physical Review E., 55(4):4458-4474 (1997).  Evans E. et al., "Entropy-Driven Tension and Bending Elasticity in condensed-Fluid Membranes," Phys. Rev. Lett., 64(17):2094-2097 (1990).  Evans E. et al., "Physical Properties of Surfactant Bilayer Membranes: Thermal Transitions, Elasticity, Rigidity, Cohesion, and Colloidal Interactions," J. Physical Chemistry, 91:4219-4228 (1987).  Fendler J. H., "Polymerized surfactant vesicles: novel membrane mimetic systems," Science, 223:888 (1984).  Gerasimov O. V. et al, "Acid-catalyzed plasmenylcholine hydrolysis and its effect on bilayer permeability:	32	Connectivity," Science, 266(5187):1032-1035 (1994).	
Rev. Lett., 64(17):2094-2097 (1990).  Evans E. et al., "Physical Properties of Surfactant Bilayer Membranes: Thermal Transitions, Elasticity, Rigidity, Cohesion, and Colloidal Interactions," J. Physical Chemistry, 91:4219-4228 (1987).  Fendler J. H., "Polymerized surfactant vesicles: novel membrane mimetic systems," Science, 223:888 (1984).  Gerasimov O. V. et al, "Acid-catalyzed plasmenylcholine hydrolysis and its effect on bilayer permeability:		theory," Physical Review E., 55(4):4458-4474 (1997).	
Rigidity, Cohesion, and Colloidal Interactions," J. Physical Chemistry, 91:4219-4228 (1987).  Fendler J. H., "Polymerized surfactant vesicles: novel membrane mimetic systems," Science, 223:888 (1984).  Gerasimov O. V. et al, "Acid-catalyzed plasmenylcholine hydrolysis and its effect on bilayer permeability:		Rev. Lett 64(17):2094-2097 (1990).	
(1984).  Gerasimov O.V. et al, "Acid-catalyzed plasmenylcholine hydrolysis and its effect on bilayer permeability:		Rigidity, Cohesion, and Colloidal Interactions," J. Physical Chemistry, 91:4219-4228 (1987).	
Gerasimov O.V. et al, "Acid-catalyzed plasmenylcholine hydrolysis and its effect on bilayer permeability:	36	(1984).	ļ
a quantitative study, Biochim. Biophys., 1324:200-214 (1997).	(3)	Gerasimov O.V. et al, "Acid-catalyzed plasmenylcholine hydrolysis and its effect on bilayer permeability: a quantitative study," Biochim. Biophys., 1324:200-214 (1997).	

US Application No.: 10/812,292 Attorney Docket: 61169.00040 (O-2863 CIP)

_		
	Govender T. et al., "Defining the drug incorporation properties of PLA-PEG nanoparticles," Internat'l J. Pharmaceutics, 199:95-110 (2000).	
200	Gref R. et al., "Biodegradable long-circulating polymeric nanosphere," Science, 263(5153):1600-1603 (1994).	
40 [	Guo X. et al., "Mechanism of pH-Triggered Collapse of Phosphatidylethanolamine Liposomes Stabilized by an Ortho Ester Polyethyleneglycol Lipid," Biophysical Journal, 84:1784-1795 (2003).	
41	Hagan S.A. et al., "Polyactide-Poly (ethylene glycol) Copolymers as Drug Delivery Systems. 1. Characterization of Water Dispersible Micelle-Forming System," Langmuir, 12:2153-2161 (1996).	
42	Hajduk D. A. et al., "Complex Phase Behavior in Aqueous Solutions of Poly (ethylene oxide) - Poly (ethylethylene) Block Copolymers," J. Phys. Chem., 102:4269-4276 (1998).	
43	Harasym T. O. et al., "Intratumor distribution of doxorubicin following i.v. administration of drug encapsulated in egg phosphatidyicholine/cholesterol liposome," Cancer Chemother Pharmacol., 40:309-317 (1997).	
44	Haran G. et al., "Transmembrane ammonium sulfate gradients in liposomes produce efficient and stable entrapment of amphipathic weak bases," Biochi, Biophys. Acta, 1151:201-215 (1993).	
45	Helfrich W. et al., "Undulations, Steric Interaction and Cohesion of Fluid Membranes (*)," Nuovo Cimento, 3D(1):137-151 (1984).	
46	Henselwood F. et al., "Water-Soluble Porous Nanospheres," Macromolecules, 31:4213-4217 (1998).	
47	Hentze et al., "Lyotropic Mesophases of Poly (ethylene oxide)-b-poly(butadiene) Diblock Copolymers and Their Cross-Linking to Generate Ordered Gels," Macromolecules, 32:5803-5809 (1999).	
48	Hillmyer M.A. et al., "Synthesis and Characterization of Model Polyalkane - Poly (ethylene oxide) Block Copolymers," Macromolecules, 29:6994-7002 (1996).	
49	Hillmyer M. A., "Complex Phase Behavior in Solvent-Free Nonionic Surfactants," Science, 271:976-978 (1996).	
50	Hobbie R.K. et al., "Transport through neutral membranes," Intermediate Physics for Medicine and Biology, 3 <sup>rd</sup> ed., AIP Press, New York, 114-124 (1997).	
51	Holland et al., "Poly(ethylene glycol)-Lipid conjugates Promote Bilayer Formation in Mixtures of Non-Bilayer-Forming Lipids," Biochemistry, 35:2610-2617 (1996).	
52	Hrkach J. S. et al., "Nanotechnology for biomaterials engineering: structural characterization of amphiphilic polymeric nanoparticles by <sup>1</sup> H NMR spectroscopy," Biomaterials, 18:27-30 (1997).	
53	Israelachvili, in Intermolecular and Surface Forces, 2 <sup>nd</sup> ed., Pt3 (Academic Press, New York) (1995).	
53 54	Jain S. et al., "On the Origins of Morphological Complexity in Block Copolymer Surfactants," Science, 300:460-464 (2003).	
55	Jellinek H.H.G., "Aspects of Degradation and Stabilization of Polymers," Elsevier, New York, 617-657 (1978).	
55	Jiang et al., "Stabilization and Controlled Release of Bovine Serum Albumin Encapsulated in Poly(D, L-lactide) and Poly(ethylene glycol) Microsphere Blends," Pharmaceutical Research, 18(6):878-885 (2001).	
57	Jørgensen K. et al., "Biophysical mechanisms of phospholipase A2 activation and their use in liposome-based drug deliver," FEBS Letters, 531:23-27 (2002).	
58	Kidane A. et al., "Surface modification of polyethylene terephthalate using PEO-polybutadiene-PEO triblock copolymers," Colloids and Surfaces B: Biointerfaces, 18:347-353 (2000).	
59	Kim H. et al., "Surface Stabilization of Diblock PEG-PLGA Micelles by Polymerization of N-Vinyl-2pytrolidone," Macromol. Rapid Commun., 23:26-31 (2002).	
60	Kim J. et al., "Core-stabilized Polymeric Micelle as Potential Drug Carrier: Increased Solubilization of Taxol," Polymers for Advanced Technologies, 10:647-654 (1999).	
61	Kirpotin D. et al., "Liposomes with detachable polymer coating: destabilization and fusion of dioleoylphosphatidylethanolamine vesicles triggered by cleavage of surface-grafted poly(ethylene glycol)," FEBS Lett., 388:115-118 (1996).	
62	Klibanov A. L. et al., "Ambphipathic polyethyleneglycols effectively prolong the circulation time of liposomes," FEBS Lett. 268(1):235-237 (1990).	
6.3	Kong G. et al., "Efficacy of Liposomes and Hyperthermia in a Human Tumor Xenograft Model: Importance of triggered Drug Release," Cancer Research 60:6950-6957 (2000).	
64	Koltover I. et al., "An Inverted Hexagonal Phase of Cationic Liposome – DNA Complexes Related to DNA Release and Delivery," Science, 281:78-81 (1998).	
4	Kostanski J. W. et al., "Preparation, Characterization, and In Vitro Evaluation of 1- and 4-Month Controlled Release Orntide PLA and PLAGA Microspheres," Pharmaceutical Development and Technology, 5(4):585-596 (2000).	

		<del></del>
666	Kukula H. et al., "The Formation of Polymer Vesicles or "Peptosomes" by Polybutadiene-block-poly (L-	
روپي	glutamates)s in Dilute Aqueous Solution," J. Amer. Chem. Soc. 124(8):1658-1663 (2002).	
67 <sub>1</sub>	Kweon H. et al., "A novel degradable polycaprolactone networks for tissue engineering," Biomaterial,	
^`\_	24:801-808 (2003).	
68	Ladavière C. et al., "Slow Reorganization of Small Phosphatidylcholine Vesicles upon Adsorption of	
	Amphilic Polymers," Journal of Colloid and Interface Science, 241:178-187 (2001).	
69	Ladavière C. et al., "Lateral Organization of Lipid Membranes Induced by Amphiphilic Polymer	
	Inclusions," Langmuir, 18-7320-7327 (2002).	
70	Lasic D.D. et al., "Medical Applications of Liposomes," Elsevier, Amsterdam, New York, 1-16(1998).	
71	Lee J. et al., "Preparation, Stability, and In Vitro Performance of Vesicles Made with Diblock	
`` <b>\</b>	Copolymers," Biotechnology and Bioengineering, 73(2):135-145 (2001).	1
72	Li X. et al., "In Vitro Degradation and Release Profiles of Poly-DL-Lactide-Poly (ethylene glycol)	
	Microspheres with Entrapped Proteins," Journal of Applied Polymer Science, 78:140-148 (2000).	
73	Li X. et al., "In Vitro Protein Release and Degradation of Poly-dl-lactide-poly(ethylene glycol)	
	Microspheres with Entrapped Human Serum Albumin: Quantitative Evaluation of the Factors Involved in	Ï
	Protein Release Phases," Pharmaceutical Research, 18(1): 117-124.	1
74	Lin Z. et al., "Vesicle Formation in Electrolyte Solutions of a New Cationic Siloxane Surfactant," J. Phys.	<u> </u>
1	Chem., 97:3571-3578 (1993).	
75	Lin Z. et al., "Cryogenic Electron Microscopy of Rodlike or Wormlike Micelles in Aqueous Solutions of	
	Nonionic Surfactant Hexaethylene Glycol Monohexadecyl Ether," Langmuir, 8:2200-2205 (1992).	1
76	Liu D. et al., "Recognition and clearance of liposomes containing phosphatidylserine are mediated by	
~ <b>`</b>	serum opsonin," Biochim. Biophys. Acta. Biomembranes, 1235:140-146 (1995).	
77	Liu G. et al., "Polystyrene-block-polyisoprene Nanofiber Fractions. 2 Viscometric Study,"	
~ \ \ \	Macromolecules, 36:2049-2054 (2003).	
78	Longo M. et al., "Interaction of the Influenza Hemagglutinin Fusion Peptide with Lipid Bilayers: Area	
/°	Expansion and Permeation," Biophysical Journal, 73:1430-1439 (1997).	
79	Lucke A. et al., "Biodegradable poly(D,L-lactic acid)-poly(ethylene glycol)-monomethyl ether diblock	
"	copolymers: structures and surface properties relevant to their use as biomaterials," Biomaterials,	i
}	21:2361-2370 (2000).	
80 /	Matsumoto J. et al., "Preparation of nanoparticles consisted of poly(L-lactide)-poly(ethylene glycol) - poly	
00	(L-lactide) and their evualuation in vitro," International J. of Pharmaceutics, 185:93-101 (1999).	
81	Meng F. et al., "Biodegradable Polymersomes," Macromolecules, 36:3004-3006 (2003).	
82	Morita T. et al., "Applicability of various amphiphilic polymers to the modification of protein release	
	kinetics from biodegradable reservoir-type microspheres," European Journal of Pharmaceutics and	
	Biopharmaceutics, 51:45-53 (2001).	
83	Mueller A. et al., "Light-Stimulated Destabilization of Peg-Liposomes," Polymer Preprints (ACS),	
"	40(2):205 (1999).	
84	Najafi F. et al., "Biodegradable micelles/polymersomes from fumaric/sebacic acids and poly(ethylene	
٠.١	glycol)," Science, 24:1175-1182 (2003).	
85	Nardin C. et al., "Polymerized ABA Triblock Copolymer Vesicles," Langmuir, 16:1035-1041 (2000).	
86	Needham D. et al., "Elastic deformation and failure of lipid bilayer membranes containing cholesterol,"	1
"\	Biophys. J., 58:997-1009 (1990).	
87	Needham D. et al., in Vesicles, M. Rosoff, Ed. (Dedder, New York, 1996), chap. 9.	
88	Needham D. et al., "The developmenet and testing of a new temperature-sensitive drug delivery system for	
	the treatment of solid tumors," Advanced Drug Delivery Reviews, 53:285-305 (2001).	
89	Netz R. et al., "Pore formation and rupture in fluid bilayers," Physical Review E., 53(4):3875-3885.	
90	Panagi Z. et al., "Effect of dose on the biodistribution and pharmacokinetics of PLGA and PLGA-mPEG	
	nanoparticles," International Journal of Pharmaceutics, 221:143-152 (2001).	
91	Pitt C.G., "Poly(e-caprolactone) and its copolymers," R. Langer and M. Chasin (Eds.), Biodegrabable	
	Polymers as Drug Delivery Sytems, Marcel Dekker, New York, NY, pp. 71-120 (1990).	
92	Penco M. et al.," Degradation behavior of block copolymers containing poly(lactic-glycolic acid) and	
	poly(ethylene glycol segments," Biomaterials, 17(16):1583-1590 (1996).	
93	Peracchia M. T. et al., "PEG-coated nanospheres from amphiphilic diblock and multiblock copolymers:	
	Investiation of their drug encapsulation and release characteristics," Journal of Controlled Release,	
^	46:223-231 (1997).	
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9Atr	Petrov A. G. et al., "Elastic and Flexoelectic Aspects of Out-Of-Plane Fluctuations in Biological and	<u> </u>

US Application No.: 10/812,292 Attorney Docket: 61169.00040 (O-2863 CIP)

Model Membranes," Prog. In Surf. Science, 16:389-512 (1984). Photos P.J. et al., "Polymer vesicles in vivo: correlations with PEG molecular weight," Journal of Controlled Release, 90:323-334 (2003). Piskins et al., "Novel PDLLA/PEG copolymer micelles as drug carriers." J. Biomaterials Science, Polymer Ed. 7:359-373 (1995). Riley et al.," Physicochemical Evaluation of Nanoparticles Assembled from Poly(lactic acid)-Poly(ethylene glycol) (PLA-PEG) Block Copolymers as Drug Delivery Vehicles," Langmuir, 17:3168-Rui Yuanjin et al., "Diplasmenylcholine-Folate Liposomes: An Efficient Vehicle for Intracellular Drug Delivery," Journal of the American Chemical Society, 120(44):11213-11218 (1998). Roux D. et al.," Curvature Elasticity of Pure and Mixed Surfactant Films," Physical Review Letters, 60(19):1966-1969 (1988). Salem A. K. et al., "Synthesis and Characterisation of a Degradable Poly(lactic acid) - Poly(ethylene glycol) Copolymer with Biotinylated End Groups," Biomacromolecules, 2:575-580 (2001). Savic R. et al., "Micellar Nanocontainers Distribute to Defined Cytoplasmic Organelles," Science, 300:615-618 (2003). Schillen K. et al., "Vesicles Formed from a Poly(ethylene oxide)-Poly(propylene oxide0-Poly(ethylene oxide) Triblock Copolymer in Dilute Aqueous Solution," Macromolecules, 32:6885-6888 (1999). Schmitt et al., "Importance of Distinct Water Environments in the Hydrolysis of Poly(DL-lactife-coglycolide)," Macromolecules, 27:743-748(1994). Seifert U. et al., "Shape transformations of vesicles: Phase diagram for spontaneous-curvature and bilayercoupling models," Physical Review A., 44(2):1182-1202 (1991). Sisson T. et al., "Cross-Linking Polymerizations in Two-Dimensional Assemblies," Macromolecules, 29:8321-8329 (1996). Shah et al., "Poly-DL-lactic acid: polyethylene glycol block copolymers. The influence of polyethylene glycol on the degradation of poly-DL-lactic acid," Biomaterials Science, Polymer Ed. 5:421-431 (1994). Shin J. et al., "Acid-triggered release via dePEGylation of DOPE liposomes containing acid-labile vinyl ether PEG-lipids," Journal of Controlled Release, 91:187-200 (2003). Svetina S. et al., "Membrane bending energy and shape determination of phospholipids vesicles and red blood cells," Eur. Biophys. J., 17:101-111(1989). Szleifer et al., "Curvature Elasticity of Pure and Mixed Surfactant Films," Phys. Rev. Lett. 60(19):1966 109 Tseng Y. et al., "Grafting of ethylene glycol-butadiene block copolymers onto dimethyl-dichlorosilanecoated glass by y-irradiation," Biomaterials, 16:963-972 (1995). Ulbrich K. et al., "HPMA copolymers with pH-controlled release of doxorubicin In vitro cytotoxicity and 111 in vivo antitumor activity," Journal of Controlled Release, 87:33-47 (2003). Valentini M. et al., "Precise Determination of the Hydrophobic/Hydrophilic Junction in Polymeric 111 Vesicles," Langmuir, 19:4852-4855 (2003). Warriner H. et al., "Lamellar biogels: fluid-membrane-based hydrogels containing polymer lipids," 118 Science, 271(5251):969-973 (1996). Woo B. et al., "Preparation, characterization and in vivo evaluation of 120-day poly(D,L-lactide) leuprolide microspheres," Journal of Controlled Release, 75:307-315 (2001). Won Y. et al., "Giant Wormlike Rubber Micelles," Science, 283:960-963 (1999). 115 Wymer N. et al., "Cascade Liposomal Triggering: Light-Induced Ca2+ Release from Diplasmenylcholine Liposomes Triggers PLA2-Catalyzed Hydrolysis and Contents Leakage from DDP Liposomes," Bioconjugate Chem., 9(3): 305-308 (1998). Yasugi K. et al., "Sugar-Installed Polymer Micelles: Synthesis and Micellization of Poly(ehty glycol) -117 poly(D,L-lactide) Block Copolymers Having Sugar Groups at the PEG Chain End," Macromolecules, 32:8024-8032 (1999). Yu K. et al., "Bilayer Morphologies of Self-Assembled Crew-Cut Aggregates of Amphiphilic PS-b-PEO Diblock Copolymers in Solution,' Macromolecules, 31:3509-3518 (1998). Zalipshy S. et al., "New Detachable Poly(ethylene glycol) conjugates: Cysteine-Cleavable Lipopolymers Regenerating Natural Phospholipid, Diacyl Phosphatidylethanolamine," Bioconjugate Chemistry, 10:703-707 (1999). Zhigaltsev I. et al., "Triggered release of doxorubicin following mixing of cationic and anionic liposomes," Biochim. Biophys. Acta. 1565:129-135 (2002).



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